WHAT IS CLAIMED IS:

1. An assay for identifying a substance that inhibits the specific interaction of a host cell protein, that is not a cell surface receptor protein, with a viral protein required for viral infection, replication, assembly or release, comprising:

(a) contacting a protein or peptide containing an amino acid sequence corresponding to the binding site of the host cell protein with a protein or peptide having an amino acid sequence corresponding to the binding site of the viral protein, under conditions and for a time sufficient to permit binding and the formation of a complex, in the presence of a test substance, and

(b) detecting the formation of a complex, in which the ability of the test substance to inhibit the interaction between the host cell protein and the viral protein is indicated by a decrease in complex formation as compared to the amount of complex formed in the absence of the test substance.

2. An assay for identifying a substance that inhibits the interaction of influenza virus NP with a host cell protein comprising:

(a) contacting a protein or peptide containing an amino acid sequence corresponding to the binding site of influenza virus NP with a protein or peptide containing an amino acid sequence corresponding to the binding site of the host cell protein, under conditions and for a time sufficient to permit binding and formation of a complex, in the presence of a test substance, and

(b) detecting the formation of a complex, in which the ability of a test substance to inhibit the interaction between influenza virus NP and the host cell protein is indicated by a decrease in complex

formation as compared to the amount of complex formed in the absence of the test substance.

3. The assay of Claim 2 in which the host cell protein is NPI-1.

4. The assay of Claim 3 in which the host cell protein is NPI-2.

5. The assay of Claim 3 in which the host cell protein is NPI-3.

6. The assay of Claim 3 in which the host cell protein is NPI-4.

7. The assay of Claim 3 in which the host cell protein is NPI-5.

8. The assay of Claim 3 in which the host cell protein is NPI-6.

9. An assay for identifying a substance that inhibits the interaction of influenza virus NS1 with a host cell protein comprising:

(a) contacting a protein or peptide containing an amino acid sequence corresponding to the binding site of influenza virus NS1 with a protein or peptide containing an amino acid sequence corresponding to the binding site of the host cell protein, under conditions and for a time sufficient to permit binding and formation of a complex, in the presence of a test substance, and

(b) detecting the formation of a complex, in which the ability of a test substance to inhibit the interaction between influenza virus NS1 and the host cell protein is indicated by a decrease in complex

formation as compared to the amount of complex formed in the absence of the test substance.

10. The assay of Claim 9 in which the host cell protein is NS1I-1.

11. The assay of Claim 1, 2, or 9 in which one protein or peptide of the complex is immobilized, and the other protein or peptide is labeled with a signal-generating compound.

12. The assay of Claim 11 in which an immobilized antibody is used to anchor the immobilized protein or peptide.

13. The assay of Claim 11 in which a labeled antibody is used to label the protein or peptide with a signal-generating compound.

14. The assay of Claim 11 in which the protein or peptide substrate is immobilized prior to the reaction so that the reaction is conducted in a solid-liquid phase.

15. The assay of Claim 1, 2, or 9 in which the proteins or peptides are contacted in a liquid phase to form a complex which is separated from the liquid phase at the end of the reaction.

16. The assay of Claim 15, in which the complex formed is separated from the liquid phase by immobilizing the complex on a solid phase.

17. The assay of Claim 16 in which the complex is captured by an immobilized antibody specific for one of the proteins or peptide binding partners.

18. A method for treating influenza virus infection, comprising administering to an infected individual, a therapeutically effective amount of a substance that inhibits the specific interaction of a host cell protein with a viral protein required for viral infection, replication, assembly or release.

19. The method of Claim 18 in which the viral protein is NP.

20. The method of Claim 18 the host cell protein is NPI-1.

21. The method of Claim 18 the host cell protein is NPI-2.

22. The method of Claim 18 the host cell protein is NPI-3.

23. The method of Claim 18 the host cell protein is NPI-4.

24. The method of Claim 18 the host cell protein is NPI-5.

25. The method of Claim 18 the host cell protein is NPI-6.

26. The method of Claim 18 the viral protein is NS1.

27. The method of Claim 18 the host cell protein is NS1I-1.

28. An isolated DNA sequence which encodes the amino acid sequence of NPI-1, or which selectively

hybridizes to the complement of the coding sequence of NPI-1 and encodes a functionally equivalent gene product.

29. An isolated DNA sequence which encodes the complement of the DNA sequence of Claim 28.

30. A DNA vector containing the DNA sequence of Claim 28.

31. A DNA vector containing the DNA sequence of Claim 29.

32. An expression vector containing the DNA sequence of Claim 28 operatively associated with a regulatory element that directs the expression of the DNA sequence.

33. A genetically engineered host cell containing the DNA sequence of Claim 28 operatively associated with a regulatory element that directs expression of the DNA sequence in the host cell.

34. A DNA sequence which encodes the amino acid sequence of NPI-2, NPI-3, NPI-4, NPI-5, or NPI-6 or which selectively hybridizes to the complement of the coding sequence of NPI-2, NPI-3, NPI-4, NPI-5, or NPI-6 and encodes a functionally equivalent gene product.

35. A DNA sequence which encodes the complement of the DNA sequence of Claim 34.

36. A DNA vector containing the DNA sequence of Claim 34.

37. A DNA vector containing the DNA sequence of Claim 35.

38. An expression vector containing the DNA sequence of Claim 34 operatively associated with a regulatory element that directs the expression of the DNA sequence.

39. A genetically engineered host cell containing the DNA sequence of Claim 34 operatively associated with a regulatory element that directs expression of the DNA sequence in the host cell.

40. An isolated DNA sequence which encodes the amino acid sequence of NS1I-1, or which selectively hybridizes to the complement of the coding sequence of NS1I-1 and encodes a functionally equivalent gene product.

41. An isolated DNA sequence which encodes the complement of the DNA sequence of Claim 40.

42. A DNA vector containing the DNA sequence of Claim 40.

43. A DNA vector containing the DNA sequence of Claim 41.

44. An expression vector containing the DNA sequence of Claim 40 operatively associated with a regulatory element that directs the expression of the DNA sequence.

45. A genetically engineered host cell containing the DNA sequence of Claim 40 operatively

associated with a regulatory element that directs expression of the DNA sequence in the host cell.